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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,447	04/27/2001	Peter James Duffett-Smith	41253	7010

7590 11/06/2003

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1225 Connecticut Avenue NW  
Washington, DC 20036-2680

EXAMINER
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RAMPURIA, SHARAD K

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/830,447

Applicant(s)

DUFFETT-SMITH ET AL.

Examiner

Sharad K. Rampuria

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s). (PTO-1449) Paper No(s) 4.                      6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Drane et al., Ruutu et al., Camp Jr., Parl et al., Duffett-Smith et al.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14 are rejected under 35 U.S.C. 102 (b) as being anticipated by Kelley et al.

1. Regarding claim 1, Kelley disclosed A method of generating a list of offsets in time, phase, frequency, or derivatives thereof, or their equivalents expressed as offsets in distance or derivatives thereof, of a plurality of transmission source signals, received at a given location, relative to a common reference (abstract), the method comprising

(a) acquiring data from one or more receivers, the positions of which may be known or determined, the data from a receiver comprising offsets in time, phase, frequency, or derivatives thereof, respectively of signals received from the transmission sources relative to a reference source in each receiver or to each other; (col.18; 9-28, col.13; 16-38, col.14; 54-67) and  
(b) combining the acquired data and calculating the list of offsets relative to the common reference. (col.18; 29-47)

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2. Regarding claim 2, Kelley disclosed A method of generating a list of offsets in time, phase, frequency, or derivatives thereof, or their equivalents expressed as offsets in distance or derivatives thereof, of a plurality of transmission source signals, received at a given location, relative to a common reference (abstract), the method comprising

(a) acquiring data from one or more receivers, the positions of which may be known or determined, the data from a receiver being representative of the received signals; (col.18; 9-28)

(b) determining from the acquired data the offsets in time, phase, frequency, or derivatives thereof, respectively of signals received from the transmission sources relative to a reference source or to each other; (col.18; 9-28, col.13; 16-38, col.14; 54-67) and

(c) combining the offsets so determined and calculating the list of offsets relative to the common reference. (col.18; 29-47)

3. Regarding claim 3, Kelley disclosed A radio positioning method for determining the position of one or more receivers the positions of which are unknown, which method includes the method of claim 1 or claim 2. (120-1 thru120-3; fig.1; col.4; 56-65)

4. Regarding claim 4, Kelley disclosed A radio positioning method according to claim 3, wherein the common reference comprises an external reference. (external time reference; col.17; 40-50)

5. Regarding claim 5, Kelley disclosed A radio positioning method according to claim 4, wherein the common reference comprises a GPS signal. (GPS; col.17; 40-50)

6. Regarding claim 6, Kelley disclosed A radio positioning method according to claim 3, wherein the step of acquiring data from said one or more receivers includes instigating acquisition of said data from a common location. (CPU; col.18; 29-47)

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7. Regarding claim 7, Kelley disclosed A radio positioning method according to claim 3, wherein the step of acquiring data from said one or more receivers includes instigating acquisition of said data from each said receiver at times determined by each said receiver. (col.18; 29-47)

8. Regarding claim 8, Kelley disclosed Apparatus for generating a list of offsets in time, phase, frequency, or derivatives thereof, or their equivalents expressed as offsets in distance or derivatives thereof, of a plurality of transmission source signals, received at a given location, relative to a common reference (abstract), the apparatus comprising

(a) means for acquiring data from one or more receivers, the positions of which may be known or determined, the data from a receiver comprising offsets in time, phase, frequency, or derivatives thereof, respectively of signals received from the transmission sources relative to a reference source in each receiver or to each other; (col.18; 9-28, col.13; 16-38, col.14; 54-67) and

(b) means for combining the acquired data and calculating the list of offsets relative to the common reference. (col.18; 29-47)

9. Regarding claim 9, Kelley disclosed Apparatus for generating a list of offsets in time, phase, frequency, or derivatives thereof, or their equivalents expressed as offsets in distance or derivatives thereof, of a plurality of transmission source signals, received at a given location, relative to a common reference (abstract), the method comprising

(a) means for acquiring data from one or more receivers, the positions of which may be known or determined, the data from a receiver being representative of the received signals; (col.18; 9-28)

(b) means for determining from the acquired data the offsets in time, phase, frequency, or derivatives thereof, respectively of signals received from the transmission sources relative to a reference source or to each other; (col.18; 9-28, col.13; 16-38, col.14; 54-67) and

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(c) means for combining the offsets so determined and calculating the list of offsets relative to the common reference. (col.18; 29-47)

10. Regarding claim 10, Kelley disclosed A radio positioning system including apparatus according to claim 8 or to claim 9. (DPLL; col.3; 2-9 & col.5; 12-16)

11. Regarding claim 11, Kelley disclosed A radio positioning system according to claim 10, wherein the common reference comprises a reference external to said receivers. (external time reference; col.17; 40-50)

12. Regarding claim 12, Kelley disclosed A radio positioning system according to claim 11, wherein the common reference comprises a GPS signal. (GPS; col.17; 40-50)

13. Regarding claim 13, Kelley disclosed A radio positioning system according to claim 10, wherein the means for acquiring data from said one or more receivers includes a computer system arranged to instigate the transfer of said data from said one or more receivers to said computer system at times determined by said computer system. (col.18; 29-47)

14. Regarding claim 14, Kelley disclosed A radio positioning system according to claim 10, wherein the means for acquiring data from said one or more receivers includes a computer system, and including means for instigating said acquisition of data from each said receiver at times determined by each said receiver. (col.18; 29-47)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. in view of Freeburg et al.

15. Regarding claim 15, Kelley disclosed all the particulars of the claim except A digital telephone network. However, Freeburg teaches in an analogous art, that A digital telephone network, including a radio positioning system according to claim 10. (10; fig.1; col.2; 26-32) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include A digital telephone network in order to provide a location information for radio station in such a network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharad Rampuria whose telephone number is 703-308-4736. The examiner can normally be reached on Mon-Thu. (8:15-5:45) alternate Fri.( 8:15-4:45).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the



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organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Sharad K. Rampuria  
October 28, 2003

  
WILLIAM TROST  
SUPERVISORY PATENT EXAMINER  
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